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01990052.1 / 1 332 654

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(54) **Methods of positioning components using liquid prime movers and related structures**

(57) A liquid prime mover can be used to position a component on a substrate. For example, a liquid material can be provided on the substrate adjacent the component such that the component has a first position relative to the substrate. A property of the liquid material can then

be changed to move the component from the first position relative to the substrate to a second position relative to the substrate. Related structures are also discussed.

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EUROPEAN SEARCH REPORT

Application Number
EP 04 01 7670

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 197 13 785 A (VELHAGEN ET AL.) 8 October 1998 (1998-10-08) * the whole document * * claims 1-5; figures 5a,5b *	1,11,12	B23K3/06 G01F23/292 H05K13/00
A	US 6 028 673 A (NAGASAKI ET AL.) 22 February 2000 (2000-02-22) * claim 1 *	1	
A	DE 42 22 804 A (RAYTHEON CO.) 1 April 1993 (1993-04-01) * claim 1 *	1-7,11, 12	
A,P	US 6 276 589 B1 (WATTS, JR. ET AL.) 21 August 2001 (2001-08-21) * the whole document *	1-7,11, 12	
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 163613 A (MITSUI HIGH TEC INC), 19 June 1998 (1998-06-19) * abstract *	8-10	
A	US 4 688 885 A (POTEAT ET AL.) 25 August 1987 (1987-08-25) * the whole document *	8-10	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B23K G01F H05K
8	Place of search The Hague	Date of completion of the search 22 November 2005	Examiner Herbreteau, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-7, 11,12

Method of manipulating a light path between two optical
components, and optical structure therefore

2. claims: 8-10

and optical structure with an optical fiber in contact with
and between two elongate bumps.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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22-11-2005

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